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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,189	11/16/2001	Donald C. Abbott	TI - 32881	7012
23494	7590	06/15/2004		
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			EXAMINER PATEL, ISHWARBHAI B	
			ART UNIT 2827	PAPER NUMBER

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/993,189

Applicant(s)

ABBOTT ET AL.

Examiner

Ishwar (I. B.) Patel

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-- The MAILING DATE of this communication appears n th cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 18-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-8,11,12,18,20,22 and 23 is/are rejected.
- 7) ☒ Claim(s) 2,3,9,10,19 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 2, 3, 9, 10, 22 and 23 are objected to because of the following:

Regarding claims 2 and 3:

"said involving" line 4, and "said corrosion-resisting agent" line 5, lacks antecedent basis. Claim 1 recites a device within a package and the package comprising an electrically insulating component, and involving a corrosion resistant agent in said electrically insulating component. This means that the electrically insulating component is part of the package, and this reads on element 52 of figure 2 or element 18 of figure 1, for example (see page 4 of the specification).

Claims 2 and 3 further recite a substrate, wherein the substrate includes a chemical compound (claim 2) and mixture (claim 3) and subsuming corrosion resistant material in that compound or mixture. Claim 2 and 3 recite "said involving being affected by subsuming said corrosion resistant agent." This antecedent basis is improper because the involving and the corrosion resistant agent of claim 1 are those which are incorporated into the insulating component such as elements (52) or (18) of figures 2 or 1. But the involving step of claims 2 and 3 refer to incorporation of corrosion resistant material into the substrate, which is elements (74) of figure 2. Therefore, the two involving limitations refer to different parts of the invention. As such, stating "said involving" and "said corrosion resistant agent" is improper.

Regarding claims 9 and 10:

"said including being effected by subsuming said corrosion-resisting agent", lacks antecedent basis. Claim 8 recites at least one electrical device and a packaging structure comprising an electrically insulating component, said electrically insulating component of said packaging structure including a corrosion-resisting agent. This means that the electrically insulating component is part of the package, and this reads on element 52 of figure 2 or element 18 of figure 1, for example (see page 4 of the specification).

Claim 9 and 10 further recite a substrate, wherein the substrate includes a chemical compound (claim 9, and a mixture, claim 10) and subsuming corrosion resistant material in that compound (or mixture). Claims 9 and 10, recites, "said including being affected by subsuming said corrosion resistant agent." These antecedent basis are improper because the including and the corrosion resistant agent of claim 8 are those, which are incorporated into the insulating component such as elements (52) or (18) of figures 2 or 1. But the including step of claims 9 and 10 refers to incorporation of corrosion resistant material into the substrate which is elements (74) of figure 2. Therefore, the two including limitations refer to different parts of the invention. As such, stating "said including" and "said corrosion resistant agent" is improper.

Regarding new claims 22 and 23, "involving an enhanced corrosion-resisting agent" is confusing. "Enhance" means increase or improve in value, quality, desirability

etc., and is a relative term and is unclear without a comparable base value. Further, it is unclear how “involving an enhanced corrosion-resisting agent” is different from “involving a corrosion-resisting agent” as originally recited in claims 1 and 8, with any explanation.

For applying a prior art, the examiner assumed “involving an enhanced corrosion-resisting agent” is equivalent to “involving a corrosion-resisting agent”

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 4-8, 11-12, 18, 20, 22 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Oshima et al., US Patent No. 6,628,526.

Regarding claims 1 and 22, Oshima et al. discloses an electrical apparatus including at least one electrical device (electronic device 10 with electronic parts 12, see

figure 1) and package structure with electrically insulating component (a substrate 11 and resin layer 13, figure 1), comprising: involving a corrosion-resisting agent with said electrically insulating component of said package structure (resin with insulating properties and corrosion resistance, column 7, line 12-22).

Regarding claims 8 and 23, Oshima et al., discloses an electrical apparatus comprising at least one electrical device (electronic parts 12), and package structure comprising an electrically insulating component, (a substrate 11 and resin layer 13, figure 1); said packaging structure substantially enclosing said at least one electrical device; said electrically insulating component of said packaging structure including a corrosion resisting agent (the resin with insulating properties and corrosion resistance, column 7, line 12-22).

Regarding claims 4,5, 11, 12; Oshima further discloses the resin layer with corrosion resistance properties, column 7, line 12-22.

Regarding claims 6 and 7, Oshima further discloses the electrical device being substantially contained within the resin layer and the substrate, see figure 1-3.

Regarding claims 18 and 20, Oshima further discloses the package body of resin layer and substrate, which contains said electrical device, see figure 1.

4. Claims 1, 8, 18, 20, 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Mine et al., US Patent No. 5,036,024.

Regarding claims 1, 8, 22 and 23, Mine et al., discloses an electrical apparatus comprising at least one electrical device (chip 1), and package structure comprising an electrically insulating component (sealing resin 6); said packaging structure substantially enclosing said at least one electrical device; said electrically insulating component of said packaging structure including a corrosion resisting agent (sealing resin 6 with corrosion resistance properties, see figure 1, column 2, line 20-30 and column 6, line 64 to 67 and column 7, line 30-35).

Regarding claims 18 and 20, Mine further discloses said electrically insulating component is package body that contain said electrical device (resin sealing covering the device, as applied to claims 1 and 8 above).

Allowable Subject Matter

5. Claims 2,3, 9 and 10 would be allowable if rewritten to overcome the objections, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
6. Claims 19 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments filed February 24, 2004 have been fully considered but they are not persuasive.

Regarding claims 1 and 8, the applicant argues that Oshima does not disclose or suggest the presently claimed invention including the corrosion resistant agent of independent claims 1 and 8, albeit defined as the enhanced corrosion resistant agent of independent claims 22 and 23 and further states that with the presently claimed invention the corrosion resistance agent is related with the electrical insulating component of the package structure.

The resin of Oshima et al., is an insulating component and consists of corrosion resistant properties, which is enclosing the electronic device, therefore Oshima meets the limitation of involving corrosion-resisting agent in the package structure.

Further, the applicant argues that Mine et al., does not disclose or suggest the presently claimed invention including the corrosion-resisting agent of independent Claims 1 and 8, albeit defined as the enhanced corrosion resistant agent of independent Claims 22.

Mine et al., discloses IC chip 1 enclosed by sealing resin 6 and the sealing resin is an insulating element and has the corrosion resistance property as disclosed on column 2, line 20-30, therefore, Mine et al., meets limitations of involving corrosion resisting agent in the package structure.

Further, regarding new claims 22 and 23, the applicant has not shown the support for the claims in the specification and also, "no new matter is added" statement is missing.

Conclusion

8. Applicant's amendment necessitated the new ground(s) / new explanation of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ishwar (I. B.) Patel whose telephone number is (571) 272 1933. The examiner can normally be reached on M-F (8:30 - 5:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (571) 272 1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

I B Patel
Examiner
GAU: 2827
June 8, 2004

Alamy Chambliss
Primary Examiner
AU 2827